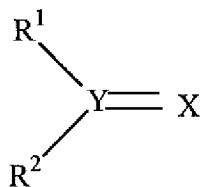
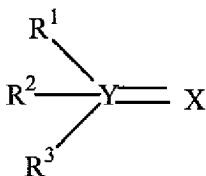


# AMENDMENTS TO THE CLAIMS

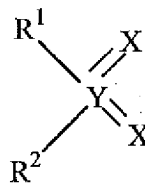
1. (Currently amended) An electronic ~~Electronic~~ device comprising cathode, anode and at least one organic layer, characterised in that the organic layer comprises at least one defined compound A containing the chemical structural unit  $Y=X$ , which is selected from compounds of formula (2) to (4)



Formula (2)



Formula (3)



Formula (4)

where the following applies to the symbols used:

Y is on each occurrence, identically or differently, P, As, Sb, Bi, S, Se or Te;

X is on each occurrence, identically or differently, O, S, Se, Te or NR;

R is on each occurrence, identically or differently, an organic radical having 1 to 22 carbon atoms or OH or NH<sub>2</sub>;

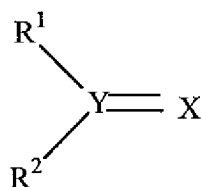
Y is on each occurrence, P in formula (3) and S in formulae (2) and (4);

X is NR<sup>4</sup> in formula (3) and is on each occurrence, identically or differently NR<sup>4</sup> or O in formulae (2) and (4);

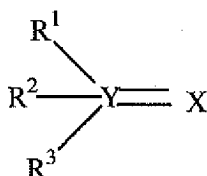
R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> is on each occurrence, identically or differently N(R<sup>4</sup>)<sub>2</sub>, a straight-chain, branched or cyclic alkyl group having 1 to 40 C atoms, which may be substituted by R<sup>5</sup> or also unsubstituted, where one or more non-adjacent -CH<sub>2</sub>- groups may be replaced by -R<sup>6</sup>C=CR<sup>6</sup>-, -C≡C-, Si(R<sup>6</sup>)<sub>2</sub>, Ge(R<sup>6</sup>)<sub>2</sub>, Sn(R<sup>6</sup>)<sub>2</sub>, C=O, C=S, C=Se, C=NR<sup>6</sup>-, -O-, -S-, -NR<sup>6</sup>- or -CONR<sup>6</sup>- and where one or more H atoms may be

# AMENDMENTS TO THE CLAIMS

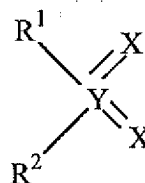
1. (Currently amended) An electronic ~~Electronic~~ device comprising cathode, anode and at least one organic layer, characterised in that the organic layer comprises at least one defined compound A containing the chemical structural unit  $Y=X$ , which is selected from compounds of formula (2) to (4)



Formula (2)



Formula (3)



Formula (4)

where the following applies to the symbols used:

Y is on each occurrence, identically or differently, ~~P, As, Sb, Bi, S, Se or Te;~~

X is on each occurrence, identically or differently, ~~O, S, Se, Te or NR;~~

R is on each occurrence, identically or differently, ~~an organic radical having 1 to 22 carbon atoms or OH or NH<sub>2</sub>;~~

Y is on each occurrence, P in formula (3) and S in formulae (2) and (4);

X is NR<sup>4</sup> in formula (3) and is on each occurrence, identically or differently NR<sup>4</sup> or O in formulae (2) and (4);

R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> is on each occurrence, identically or differently N(R<sup>4</sup>)<sub>2</sub>, a straight-chain, branched or cyclic alkyl group having 1 to 40 C atoms, which may be substituted by R<sup>5</sup> or also unsubstituted, where one or more non-adjacent -CH<sub>2</sub>- groups may be replaced by -R<sup>6</sup>C=CR<sup>6</sup>-, -C≡C-, Si(R<sup>6</sup>)<sub>2</sub>, Ge(R<sup>6</sup>)<sub>2</sub>, Sn(R<sup>6</sup>)<sub>2</sub>, C=O, C=S, C=Se, C=NR<sup>6</sup>, -O-, -S-, -NR<sup>6</sup>- or -CONR<sup>6</sup>- and where one or more H atoms may be

replaced by F, Cl, Br, I, CN or NO<sub>2</sub>; a plurality of radicals R<sup>1</sup>, R<sup>2</sup> and/or R<sup>3</sup> here may with one another form a mono- or polycyclic, aliphatic or aromatic ring system;

or an aromatic or heteroaromatic system having 1 to 40 aromatic C atoms, which may be substituted by one or more radicals R<sup>5</sup> where a plurality of substituents R<sup>1</sup>, R<sup>2</sup> and/or R<sup>3</sup> may with one another form a mono- or polycyclic, aliphatic or aromatic ring system,

or an aromatic or heteroaromatic system having 1 to 40 aromatic C atoms which is bonded via a divalent group -Z-, where one or more H atoms may be replaced by F, Cl, Br or I or which may be substituted by one or more radicals R<sup>5</sup>; a plurality of substituents

R<sup>1</sup>, R<sup>2</sup> and/or R<sup>3</sup> here may define a further mono- or polycyclic, aliphatic or aromatic ring system;

with the proviso that at least one of the radicals R<sup>1</sup>, R<sup>2</sup> and/or R<sup>3</sup> stands for an aromatic or heteroaromatic system formula (2) and (3) and that both radicals R<sup>1</sup> and R<sup>2</sup> stand for an aromatic or heteroaromatic system in formula (4);

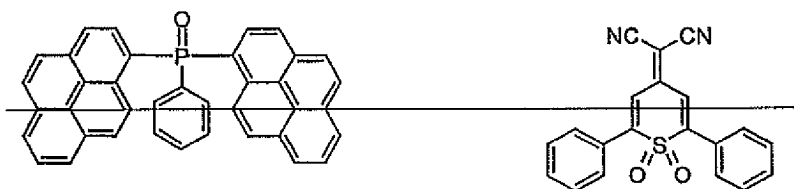
R<sup>4</sup> is on each occurrence, identically or differently a straight-chain branched or cyclic alkyl or alkoxy chain having 1 to 22 C atoms, in which, in addition, one or more non-adjacent C atoms may be replaced by -R<sup>6</sup>C=CR<sup>6</sup>-, -C≡C- Si(R<sup>6</sup>)<sub>2</sub>, Ge(R<sup>6</sup>)<sub>2</sub>, Sn(R<sup>6</sup>)<sub>2</sub>, -NR<sup>6</sup>-, -O-, -S-, -CO-, -CO-O-, -O-CO-O- and where one or more H atoms may be replaced by fluorine or is an aryl, heteroaryl, or an aryloxy group having 1 to 40 C atoms, which may also be substituted by one or more radicals R<sup>6</sup> or OH, NH<sub>2</sub>, NH(R<sup>5</sup>) or N(R<sup>5</sup>)<sub>2</sub>;

R<sup>5</sup> is on each occurrence, identically or differently, R<sup>4</sup> or CN, B(R<sup>6</sup>) or Si(R<sup>6</sup>)<sub>3</sub>;

R<sup>6</sup> is on each occurrence, identically or differently, H or an aliphatic or aromatic hydrocarbon radical having 1 to 20 C atoms;

Z is on each occurrence, identically or differently, a conjugated radical having 1 to 40 C atoms, where one or more C atoms may be substituted by a radical R<sup>5</sup> or halogen;

with the proviso that the compound A has a molecular weight of  $\geq 150$  g/mol and  $\leq 10,000$  g/mol and that the device comprises no phosphorescent emitters; ~~and furthermore with the proviso that the following compounds are excluded from the invention:~~



2-3 (Cancelled)

4. (Currently Amended) ~~The electronic~~ Electronic device according to claim 1, character-  
ised in that X stands for wherein X in the formula (2) or (4) is O.

5-6 (Cancelled)

7. (Currently Amended) ~~Electronic device according to claim 2, characterised in that the~~  
~~compound of the formulae (1)~~ The electronic device according to claim 1, wherein the  
compound of the formula (2) to (4) does not have a planar structure.

8. (Original) Electronic device according to Claim 7, characterised in that at least one of the  
substituents R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and/or R<sup>4</sup> contains at least one sp<sup>3</sup>-hybridised carbon, silicon, germanium  
and/or nitrogen atom.

9. (Original) Electronic device according to Claim 8, characterised in that at least one of the  
sp<sup>3</sup>-hybridised atoms is a secondary, tertiary or quaternary atom.

10. (Original) Electronic device according to Claim 9, characterised in that at least one of the  $sp^3$ -hybridised atoms is a quaternary atom.

11. (Currently amended) ~~Electronic device according to claim 1, characterised in that~~ The electronic device according to claim 1, wherein compound A contains a 9,9'-spirobifluorene derivative, a 9,9-disubstituted fluorene derivative, a 6,6- and/or 12,12-di- or tetrasubstituted indenofluorene derivative, a triptycene derivative, a dihydrophenanthrene derivative or a hexaarylbenzene derivative is present in at least one of the radicals  $R^1$  to  $R^4$ .

12. (Currently amended) ~~Electronic device according to claim 11, characterised in that~~ The electronic device according to claim 1, wherein compound A contains a 9,9'-spirobifluorene derivative is present in at least one of the radicals  $R^1$  to  $R^4$ .

13. (Original) Electronic device according to Claim 7, characterised in that the non-planar radical  $R^1$  or  $R^2$  or  $R^3$  represents a biaryl group.

14. (Cancelled)

15. (Previously presented) Electronic device according to claim 1, characterised in that the compound A is amorphous and the glass transition temperature  $T_g$  of the compound A is greater than 100°C.

16. (Previously presented) Electronic device according to claim 1, characterised in that the compound A is employed as electron-transport material.

17. (Currently Amended) ~~Electronic device according to claim 1, characterised in that~~ The electronic device according to claim 1, wherein the layer comprising compound A consists of comprises at least 50% of this compound.

18. (Currently Amended) ~~Electronic device according to claim 17, characterised in that~~ The electronic device according to claim 1, wherein the organic layer comprising compound A consists only of this compound of compound A as pure layer.

19. (Previously presented) Electronic devices according to claim 1, wherein in the electronic device is an organic electroluminescent device, organic thin-film transistor, organic field-effect transistor, organic solar cell, organic photoreceptor or organic laser.
20. (Previously presented) Electronic device according to claim 1, characterised in that further layers are present in addition to the layer comprising the compound A.
21. (Original) Electronic device according to Claim 20, characterised in that these further layers are selected from hole-injection layer, hole-transport layer, emission layer, hole-blocking layer, electron-transport layer and/or electron-injection layer.
22. (Currently amended) Electronic device according to claim 1, which further comprises a fluorescent emission layer and said organic layer is wherein characterised in that at least one electron-transport layer comprising at least one compound A and said electron-transport layer is present between the fluorescent emission layer and the cathode.
23. (Currently amended) Electronic device according to claim 1, ~~characterised in that the~~ which further comprises an emission layer and the emission layer comprises at least one fluorescent emitter and at least one electron-transport material, where the electron-transport material comprises at least one compound A.
24. (Previously presented) Electronic device according to claim 1, characterised in that both an electron-transport layer comprising at least one compound A and an emission layer comprising at least one compound A, which may be identical or different, are present.
25. (Currently Amended) Electronic device according to claim 1, ~~characterised in that the~~ wherein the organic layer is an emission layer and the emission layer comprising the compound A is directly adjacent to the electron-injection layer or the cathode without the use of a separate electron-transport layer.

26. (Currently Amended) Electronic device according to claim 1, ~~characterised in that the~~  
wherein the organic layer is an emission layer and the emission layer comprising the compound  
A is directly adjacent to the hole-injection layer.

27. (Previously presented) Electronic device according to claim 1, characterised in that it is  
an organic electroluminescent device in which the emitter(s) fluoresce(s) in the visible spectral  
region with one or more maxima between 380 nm and 750 nm on suitable excitation.

28. (Currently Amended) Electronic device according to ~~claim 2, characterised in that~~ claim  
1, wherein the compound of the ~~formulae (1)~~ formulae (2) to (4) is selected from the example  
structures 1 to 52